



State of Utah

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Environmental Quality

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DIVISION OF WATER QUALITY

Walter L. Baker, P.E.

Director

M1035/0002

cc: Leslie  
Tom

AUG 17 2012

Terry Marasco  
Natural Resource Project Management  
213 6<sup>th</sup> Avenue  
Salt Lake City, Utah 84103

Dear Mr. Marasco:

Subject: Issue Around KUC Expansion

Thank you for your August 8, 2012 email (enclosed) expressing concerns about blasting activities associated with the expansion of the Kennecott Utah Copper (KUC) Bingham Canyon Mine. In your email, you identified the following concerns associated with the blasting activities:

1. Complaints of cracked walls and foundations from members of the community near the mine;
2. Concerns that the overburden walls at the base of the mine are likely affected;
3. Near and long term effects on nearby aquifers.

The first issue, regarding cracked walls and foundations, is a civil matter that residents near the mine can pursue if they wish to. You may also consider contacting the Salt Lake County Building Inspector to look into the matter.

The second issue, regarding the overburden walls at the base of the mine, is regulated by the Division of Oil, Gas, and Mining (DOGM) Minerals Program. Under DOGM Rule R647-4-107.1 for Large Mining Operations, KUC "shall minimize hazards to the public safety and welfare during operations." This requirement should be addressed under KUC's existing large mining permit No. M/035/0002. For more information regarding this concern, please contact Paul Baker, Manager of the DOGM Minerals Program at 801-538-5261 or [paulbaker@utah.gov](mailto:paulbaker@utah.gov).

The third issue, regarding the near and long term effects on aquifers, can be addressed under KUC ground water discharge permit No. UGW350010, which includes a ground water monitoring network. Analytical results of compliance ground water monitoring for this permit will alert us to changes in ground water quality that may be induced by blasting activities. If you have any questions about this monitoring well network, please contact Dan Hall of the Ground Water Protection Section at 801-536-4356 or [dhall@utah.gov](mailto:dhall@utah.gov).

Our mission at the Division of Water Quality (DWQ) is to protect, maintain and enhance the quality of Utah's surface and underground waters for appropriate beneficial uses; and to protect the public health through eliminating and preventing water related health hazards which can occur as a result of improper disposal of human, animal or industrial wastes while giving reasonable consideration to the economic impact.

In an effort to accomplish our DWQ mission, we currently administer seven Ground Water Quality Discharge permits, one Utah Pollutant Discharge Elimination permit, and one Domestic Wastewater Disposal System Operating Permit for KUC facilities and operations, which are listed below:

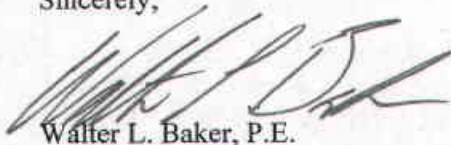
1. Ground Water Discharge Permit UGW350001 (Barney's Canyon)
2. Ground Water Discharge Permit UGW350006 (Large and Small Reservoirs)
3. Ground Water Discharge Permit UGW350008 (Smelter)
4. Ground Water Discharge Permit UGW350010 (Bingham Mine Leach Collection System)
5. Ground Water Discharge Permit UGW350011 (Tailings Impoundment)
6. Ground Water Discharge Permit UGW350015 (North Concentrator and Power Plant)
7. Ground Water Discharge Permit UGW350017 (Copperton Concentrator)
8. UPDES Permit UT0000051 (Surface Water and Storm Water Discharges)
9. Operating Permit 2010-05-06 (Domestic Wastewater Disposal System)

The Cornerstone expansion project will affect the Bingham Canyon Mine, Copperton Concentrator, Power Plant, and Tailings Impoundment, which will require major modifications to the respective ground water discharge permits for these facilities. The Refinery and Smelter are adequately sized and will not require any permit modifications. Below are the four KUC ground water discharge permits that will need to be modified for the expansion.

- Bingham Canyon Mine and Leach Collection System (UGW350010) - The Cornerstone Project will entail "pushing back" the south wall of the Bingham Canyon Mine about 1,000 feet and deepening the Mine about 300 feet to reach 700 million tons of ore resource. The shape of the pit will remain about the same, but will get wider on the southeast side and deeper at the bottom. In addition, the Eastside Collection System and associated cutoff walls will need to be decommissioned and replaced to accommodate the expanded waste rock disposal areas.
- North Concentrator and Power Plant (UGW350015) - KUC will need to generate or procure another 100 megawatts of electricity to power these facility upgrades and the Power Plant permit will need to be modified for this.
- Copperton Concentrator (UGW350017) - This permit will need to be modified to add an in-pit crusher and another grinding line and supporting equipment at the Copperton Concentrator.
- Tailings Impoundment (UGW350011) - This permit will need to be modified for the expansion of the tailings impoundment, which will be required for the disposal of additional tailings from the Cornerstone expansion.

Thank you again for your comments. I hope this information helps address your concerns.

Sincerely,



Walter L. Baker, P.E.  
Director

Enclosure: Original email message

Cc: Salt Lake County Mayor Peter Corroon  
Paul Baker, DOGM Minerals Program Manager  
Salt Lake Valley Health Department  
Kelly Payne, Kennecott Utah Copper